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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHAN, SING P

ART UNIT

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1734

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/808,366	Applicant(s) NASLI-BAKIR ET AL.	
	Examiner Sing P. Chan	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6,8,11-15,17,18,20,23-27 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,8,11-15,17,18,20,23-27 and 31-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5, 6, 8, 17, 18, 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5 and 6, it is unclear if applicant intended to change the dependency from claim 4 to claim 14. For the purpose of examination, "claim 1" will be assumed.

Regarding claim 8, it is unclear if applicant intended to change the dependency from claim 7 to claim 17. For the purpose of examination, "claim 1" will be assumed.

Regarding claims 17 and 18, it is unclear if applicant intended to change the dependency from claim 16 to claim 1516 and 3516. For the purpose of examination, "claim 15" for claim 17 and "claim 35" for claim 18 will be assumed.

Regarding claim 20, it is unclear if applicant intended to change the dependency from claim 19 to claim 1519. For the purpose of examination, "claim 15" will be assumed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 8, 15, 17, 20, 27, 31, 32, 34, 35, and 37 are rejected under 35

U.S.C. 103(a) as being unpatentable over admitted prior art in view of Cannon et al (U.S. 4,376,807).

Regarding claims 1, 8, 15, 20, and 27, the admitted prior art discloses a method of forming a wooden beam. The method includes wooden lamellae, applying a curable adhesive system to the wooden lamellae, assembling the wooden lamellae into an assembly, pressing the assembly under heat, curing the adhesive system, and planing the surface transversely to the plane of the adhesive application to remove excess adhesive and unevenness. (See Specification, Page 1, lines 16-26) The admitted prior art is silent as treating one or more planed side with treating substances reactive to one or more gaseous substances such as an aldehyde. However, treating one or more sides of a wooden panel with treating substances is well known and conventional as shown for example by Cannon et al. Cannon et al discloses a method of treating formaldehyde laden wood panels to reduce excess formaldehyde. The method includes providing the laminated wooden panel with formaldehyde-based resin, applying an aqueous solution of an ammonium salt such ammonium bicarbonate onto at least one side of the panel and allow ammonia gas to react with the free formaldehyde. (Col 5, lines 1-60)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply an aqueous solution of ammonium salt to at least one

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surface of a laminated wooden panel with the adhesive being formaldehyde-based resin as disclosed by Cannon et al in the method of admitted prior art to provide a treatment method for free formaldehyde that adapted well to high volume treatment and handling of the flat line wood panels and does not require investment of off-line treatment and handling facilities or equipment. (See Cannon et al, Col 2, lines 27-41)

Regarding claims 5 and 17, the admitted prior discloses gaseous substances including formaldehyde, terpenes, aldehydes, and isocyanates are emitted from the exposed glue lines and from the planed surface. (See Specification, Page 1, lines 7-26)

Regarding claim 31, the admitted prior art discloses a method of forming a wooden beam. The method includes wooden lamellae, applying a curable adhesive system to the wooden lamellae, assembling the wooden lamellae into an assembly, pressing the assembly under heat, curing the adhesive system, and planning the surface transversely to the plane of the adhesive application to remove excess adhesive and unevenness. (See Specification, Page 1, lines 16-26) The admitted prior art is silent as treating one or more planed side with treating substances reactive to one or more gaseous substances. However, treating one or more sides of a wooden panel with treating substances is well known and conventional as shown for example by Cannon et al. Cannon et al discloses a method of treating formaldehyde laden wood panels to reduce excess formaldehyde. The method includes providing the laminated wooden panel with formaldehyde-based resin, applying an aqueous solution of an ammonium salt such ammonium bicarbonate onto at least one side of the panel using roller coating, curtain coating, or spray coating and allow ammonia gas to react with the

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free formaldehyde. (Col 5, lines 1-60) The examiner is taking the position if the aqueous solution is applied by a curtain coating method, the curtain coating material would come in contact with the glue line of the laminate and therefore, would coat the glue line as well.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply an aqueous solution of ammonium salt to at least one surface of a laminated wooden panel with the adhesive being formaldehyde-based resin as disclosed by Cannon et al in the method of admitted prior art to provide a treatment method for free formaldehyde that adapted well to high volume treatment and handling of the flat line wood panels and does not require investment of off-line treatment and handling facilities or equipment. (See Cannon et al, Col 2, lines 27-41)

5. Claims 6, 11-14, 18, 23-26, 32, 34, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Cannon et al (U.S. 4,376,807) as applied to claims 1 and 15 above, and further in view of Rohringer et al (GB 2,062,039).

Regarding claims 6, 11, 14, 18, 23, 26, 32, 34, 35, and 37, the admitted prior as modified by Cannon et al is silent as to one treating substances is urea or a urea derivative, unsaturated aldehyde or an alcohol, or a polyvinyl alcohol dispersion. However, providing a wood treatment composition with one treating substances is urea or a urea derivative, unsaturated aldehyde or an alcohol, or a polyvinyl alcohol dispersion is well known and conventional as shown for example by Rohringer et al.

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Rohringer et al discloses a method for treating a timber with flameproof compound. The method includes providing a timber, providing a treating compound comprising component (a) of flameproof agent (Page 1, line 26) such as ammonium salts (Page 1, lines 67-74), component (b) of at least one fixing agent (Page 1, line 27), such as urea, cyanamides, and/or polyvinyl alcohols (Page 1, lines 85-118), component (c) of at least one blowing agent (Page 1, line 28), such as urea (Page 2, lines 97-115).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to treat the wood material with the flameproof composition, which comprising one treating substances is urea or a urea derivative, unsaturated aldehyde or an alcohol, or a polyvinyl alcohol dispersion as disclosed by Rohringer et al in the method of admitted prior art as modified by Cannon et al to provide a flameproof treatment for wood or timber with a lower energy costs. (See Rohringer et al, Page 1, lines 14-19)

Regarding claims 12, 13, 24, and 25, The admitted prior art as modified above is silent as to the treating composition includes 1 to about 80% by weight of one or more treating substances and 0.02 to 10% by weight of a polymer. However, providing the components in the range such as 20 to 300 g/l of component (a), 0 to 60 g/l of component (b), and 0 to 150 g/l of component (c) is well known and conventional as shown for example by Rohringer et al. Rohringer et al discloses the composition comprising 20 to 300 g/l of component (a), 0 to 60 g/l of component (b), and 0 to 150 g/l of component (c), which is within the range as recited. (Page 3, lines 3-8)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the treating composition such as 20 to 300 g/l of component (a), 0 to 60 g/l of component (b), and 0 to 150 g/l of component (c) as disclosed by Rohringer et al in the method of admitted prior art as modified by Cannon et al to provide a flameproof treatment for wood or timber with a lower energy costs. (See Rohringer et al, Page 1, lines 14-19)

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Park (U.S. 4,678,686).

The admitted prior art discloses a method of forming a wooden beam. The method includes wooden lamellae, applying a curable adhesive system to the wooden lamellae, assembling the wooden lamellae into an assembly, pressing the assembly under heat, curing the adhesive system, and planing the surface transversely to the plane of the adhesive application to remove excess adhesive and unevenness. (See Specification, Page 1, lines 16-26) The admitted prior art is silent as treating one or more planed side with treating substances reactive to one or more gaseous substances such as an aldehyde. However, treating one or more planed side with treating substances reactive to one or more gaseous substances such as an aldehyde is well known and conventional as shown for example by Park. Park discloses a method of forming formaldehyde-containing wood panel. The method includes adhering wood panels such as plywood and particleboard panels together using an urea-formaldehyde resin adhesive, which the panels may emit free vaporous formaldehyde at an unacceptable level (Col 1, lines 24-30), stacking the panels together with spacing (Col

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2, lines 46-65), placing the stacked panels in a pressure vessel, evacuate the vessel, applying a mixture of ammonia and air to the vessel to convert the free formaldehyde within the wood pores or interstices to a stable hexamine (Col 3, lines 3-26). The examiner is taking the position the laminates in the stack include the glue line and the application of ammonia and air in the application vessel at superatmospheric pressure (Col 3, lines 30-34) will react with all parts of the wood laminates including the glue lines.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to treat the wood laminates such wood panels bonded together with urea-formaldehyde resin adhesive by placing the laminate in a pressure vessel, applying a mixture of ammonia and air to the vessel to convert the free formaldehyde emission to a stable hexamine as disclosed by Park in the method of admitted prior art to provide an improved process of rapidly and efficiently treating panels for controlling emissions in the panels. (See Park, Col 2, lines 3-8)

7. Claims 33 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Cannon et al (U.S. 4,376,807) as applied to claims 1 and 15 above, and further in view of Häger (U.S. 4,597,940).

The admitted prior art as modified by Cannon et al above discloses numerous ammonium salts are effective for neutralizing formaldehyde (Col 3, lines 1-10) such as ammonium bicarbonate, but is silent as to the treating substance contains a sulphite. However, providing an ammonium salt with sulphite is well known and conventional as shown for example by Häger. Häger discloses a method of treating wood. The method

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includes using ammonium salts such as carbonate, acetate, propionate, benzoate, salicylate, cyanide, cyanate, nitrite, sulphite, fluoride, borofluoride, and fluorosilicate, which are all interchangeable. (Col 1, lines 51-61)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide any ammonium salts such as carbonate, acetate, propionate, benzoate, salicylate, cyanide, cyanate, nitrite, sulphite, fluoride, borofluoride, and fluorosilicate as disclosed by Häger in the method of admitted prior art as modified by Cannon et al, which are all interchangeable.

Response to Arguments

8. Currently, applicant has not submitted an argument pointing out disagreements with the examiner's contentions. Therefore, the argument and response to arguments of the previous office action will be applied.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P. Chan whose telephone number is 571-272-1225. The examiner can normally be reached on Monday-Thursday 7:30AM-11:00AM and 12:00PM-4:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on 571-272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chan Sing Po

SPC


PHILIP TUCKER
PRIMARY EXAMINER
SPE ART UNIT 1734